

- 18 -

Claims

1. Particle board comprising a lower and an upper surface layer (9, 11) having a finer fraction of particles (4), and between these surface layers (9, 11) 5 an intermediate layer (13) having a coarser fraction of particles (5), **characterized in that** said intermediate layer (13) has a varying density.
2. Particle board according to Claim 1, **characterized in that** said intermediate layer (13) has a higher density in areas where the particle board 10 (1) is intended for fastening to another object (52).
3. Particle board according to Claim 1 or 2, **characterized in that** said intermediate layer (13) has at least one stranded part (15) formed from particles (5) and having a higher density than at least one other surrounding 15 part (17) of said intermediate layer (13).
4. Particle board according to Claims 1 to 3, **characterized in that** at least one edge (19) of the particle board (1) coincides with a part (15, 21) of said intermediate layer (13) having a higher density than another part (17) of said 20 intermediate layer (13).
5. Particle board according to any one of the preceding claims, **characterized in that** at least one stranded part (15) formed from particles and having a higher density than other surrounding parts (17) is situated at a 25 distance from and between two edge parts (18) of said intermediate layer (13).
6. Method for the manufacture of a particle board (1) comprising a lower and an upper surface layer (9, 11) having a finer fraction of particles (4), and

- 19 -

between these surface layers (9, 11) an intermediate layer (13) having a coarser fraction of particles (5), the method **comprising the following steps**: - even distribution of the finer fraction of particles (4), forming a first particle mat (7') for forming said lower surface layer (9);

5 - distribution of the coarser fraction of particles (5), forming a second particle mat (7''), on top of the finer fraction of particles (4) by means of a distribution arrangement (25) in such a way that at least in one area (15, 21) the coarser fraction of particles is applied more thickly than in at least one surrounding part (22); - even distribution of the finer fraction of particles (4), forming a  
10 third particle mat (7'''), on top of the coarser fraction of particles (5) for forming said upper surface layer (11); and - compressing of the first, second and third particle mats (7', 7'', 7''') whilst the thickness (t) of said intermediate layer (13) remains essentially constant, so that said intermediate layer (13) has a varying density.

15

7. Method according to Claim 6, further **comprising the following steps**:

- partial dispensing of the coarser fraction of particles (5) for distribution;
- prepressing of the coarser fraction (5) partially dispensed; and
- dispensing of the remaining quantity for forming said second particle mat

20 (7'').

8. Method according to Claim 6 or 7, further **comprising the following step**:

- distribution of the coarser fraction of particles (5) by stranded spreading by means of at least one adjustable spreader element (53) according to the desired  
25 distance (a) between two stranded parts (15) having a higher density.

- 20 -

9. Method according to Claims 6 to 8, further **comprising the following step:**

5 - distribution of the coarser fraction of particles (5) by directly dispensing more particles (5) to stranded parts (15) by means of adjustable distribution members (27).

10. Method according to any one of Claims 6 to 9, further **comprising the following step:**

10 - distribution of the coarser fraction of particles (5) by means of exchangeable modular units (51', 51'') of said distribution arrangement (25).